

APPENDIX A

Claim Term	Plaintiff's Proposed Construction and Evidence	Defendants' Proposed Construction and Evidence
1. "molecular cluster compound" '828 Patent (all claims) '557 Patent (all claims)	<p>Proposed Construction:</p> <p>This claim term should be construed to mean "clusters of three or more metal atoms and their associated ligands¹ of sufficiently well-defined chemical structure such that all molecules of the cluster compound possess approximately the same relative molecular formula."</p> <p>Intrinsic Evidence:</p> <p>'828 Patent at col. 3, ll. 28-57; col. 11, l. 25 to col. 13, l. 10; Figs. 3-4E.</p> <p>'557 Patent at col. 9, ll. 58-63.</p> <p>Extrinsic Evidence: Expert testimony of Dr. Brandi Cossairt.</p> <p>Hansgeorg Schnöckel, <i>Structures and Properties of Metalloid Al and Ga Clusters Open Our Eyes to the Diversity and Complexity of Fundamental Chemical and Physical Processes during Formation and Dissolution of Metals</i>, 110 Chem. Rev. 4125 (2010) (NANOCO_00058845-8883)</p>	<p>Proposed Construction:</p> <p>Indefinite.</p> <p>To the extent the term is not indefinite, it means "clusters of 3 or more metal atoms and their associated ligands of sufficiently well-defined chemical structure such that all molecules of the cluster compound possess the same relative molecular mass, where ligand means an atom or group bound to a central atom of a complex"</p> <p>Intrinsic Evidence:</p> <p><i>Specification:</i></p> <ul style="list-style-type: none"> '828 patent at claims including, e.g., 1, 2, 3, 4, 11, 14 '828 patent at figs. 3 and 4A-4E '828 patent at Cover, Abstract, 1:1-14, 1:54-67, 3:19-57, 4:9-16, 4:31-37, 4:40-5:24, 5:52-6:15, 6:38-57, 7:17-28, 7:38-43, 9:60-10:39, 10:48-11:5, 11:25-13:10, 17:21-22:49 '423 patent at claims including, e.g., 1, 2, 4, 6, 15, 16, 25 '423 patent at figs. 2-14 '423 patent at Cover, Abstract, 1:23-29, 4:19-46, 4:57-5:54, 6:27-42, 7:33-45, 10:36-49,

¹ Samsung's proposal for ligand is consistent with the general understanding in the art and not in dispute.

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		<p>10:59-11:8, 11:32-12:38, 13:49-14:37, 14:57-15:26, Examples 1-9</p> <ul style="list-style-type: none"> • '365 patent at claims including, e.g., 1-5, 17-20 • '365 patent at figs. 2-14 • '365 patent at Cover, Abstract, 1:7-17, 1:33-39, 4:33-61, 5:5-6:3, 6:44-63, 7:48-59, 10:48-61, 11:4-21, 11:45-12:50, 13:59-14:49, 15:1-31, Examples 1-9 • '557 patent at claims including, e.g., 1, 2, 4, 6, 7, 15 • '557 patent at Cover, Abstract, 1:1-10, 1:28-34, 3:24-43, 3:54-63, 6:26-55, 7:19-26, 7:34-8:13, 8:56-60, 9:6-35, 9:58-10:5, 12:17-24, 14:58-15:18, 19:23-30, 23:54-67, 26:26-27:30, 27:55-28:15, 29:41-30:10 <p><i>Prosecution History:</i></p> <ul style="list-style-type: none"> • Prosecution History of U.S. Patent No. 7,588,828, Office Action Summary re Non-Final Rejection, at 2-3 (July 1, 2008); <i>id.</i>, Response to Office Action, at 2-3 (Sept. 29, 2008) • Prosecution History of U.S. Patent No. 7,803,423, Notice of Allowability, at 4-5 (May 20, 2010) • Prosecution History of U.S. Patent No. 8,524,365, Office Action Summary re Non-Final Rejection, at 6-7, 15 (Mar. 28, 2012);

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		<p><i>id.</i>, Response to Office Action Mailed March 28, 2012, at 4, 8 (Sept. 28, 2012)</p> <ul style="list-style-type: none"> • Prosecution History of U.S. Patent No. 7,867,557, Office Action Summary re Non-Final Rejection, at 12-18 (Oct. 19, 2009); <i>id.</i>, Amendment and Response, at 13-14 (Feb. 17, 2010) • Prosecution History for G.B. Patent No. 2,472,541, Combined Search and Examination Report, at 2 (Dec. 3, 2010); <i>id.</i>, Amended Claims, at 42 (Jan. 13, 2011). <p><i>Other:</i></p> <ul style="list-style-type: none"> • Scott L. Cumberland et al., <i>Inorganic Clusters as Single-Source Precursors for Preparation of CdSe, ZnSe, and CdSe/ZnS Nanomaterials</i>, 14 CHEM. MATERIALS 1576, 1578-79 (2002) • Prosecution History for U.S. Patent No. 8,062,703, Specification, at 9 (Aug. 11, 2010) • Prosecution History for European Patent No. 1,743,054, EPO Communication, at 2 (Feb. 3, 2015); <i>id.</i>, Ltr. to EPO re Response to Summons re Oral Proceedings, at 2 (May 11, 2015) • Prosecution History for European Patent No. 2,377,973, Description & Claims, at 9, 45 (July 13, 2011); <i>id.</i>, EPO Communication, at 1-2 (Mar. 31, 2015); <i>id.</i>, Ltr. to EPO re Mar. 31, 2015 EPO Correspondence, at 2 (Oct. 8, 2015); <i>id.</i>, EPO Communication, at 2 (Apr.

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		<p>10, 2017); <i>id.</i>, Ltr. to EPO re Loss of Rights, at 1 (Nov. 22, 2017); <i>id.</i>, Text Intended for Grant, at 9 (Apr. 10, 2017)</p> <ul style="list-style-type: none"> • Prosecution History for International Application No. PCT/GB2006/003028, International Preliminary Report on Patentability (Feb. 12, 2008); <i>id.</i>, Written Opinion of the International Searching Authority, at 2 (Feb. 12, 2008) <p>Extrinsic Evidence:</p> <ul style="list-style-type: none"> • D. Michael P. Mingos, <i>Gold Cluster Compounds</i>, 17 GOLD BULL. 5, 5 (1984) • F. A. Cotton, <i>Transition-Metal Compounds Containing Clusters of Metal Atoms</i>, 20 Q. REV. CHEM. SOC'Y 389, 389 (1966) • Bert D. Chandler & John D. Gilbertson, <i>PAMAM Dendrimer Templated Nanoparticle Catalysts</i>, in NANOPARTICLES AND CATALYSIS 129, 130 n.1 (Didier Astruc ed., 2008) • MCGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS, at 1202, 1363 (6th ed. 2003) • OXFORD DICTIONARY OF CHEMISTRY, at 135 (4th ed. 2000) • CASSELL DICTIONARY OF CHEMISTRY, at 46 (1st ed. 1998) • LEXICO, https://www.lexico.com/en/definition/cluster

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		<ul style="list-style-type: none"> • HAWLEY'S CONDENSED CHEMICAL DICTIONARY, at 698 (12th ed. 1993) • MERRIAM-WEBSTER DICTIONARY, https://www.merriam-webster.com/dictionary/ligand • <i>Compendium of Chemical Terminology</i>, IUPAC (2d ed.), https://doi.org/10.1351/goldbook.L03518 • <i>Cluster Chemistry</i>, WIKIPEDIA, http://en.wikipedia.org/wiki/cluster_chemistry, as of May 7, 2015 • MN Sokolov et al., COMPREHENSIVE INORGANIC CHEMISTRY II, Elsevier (2013) at § 2.11 (<i>Clusters and Cluster Assemblies</i>), 271 • Organometallic Chemistry of d Block Metals (Part 2), Section 6.5 (<i>available at</i> https://tinyurl.com/y7emyase) • U.S. Patent App. Pub. No. 2002/0016306, at ¶[0011] • Foreign Reference WO 2009/040553, at 6 (Apr. 26, 2011) • Pl.'s Proposed Constructions of Proposed Claim Terms, at 2 (Dec. 11, 2020) • Pl.'s Proposed Draft Joint Claim Construction and Prehearing Statement Appendix A, at 1-2 (Jan. 4, 2021) • Declaration of Dr. Brian Korgel, including incorporation by reference of all supporting information cited therein, and any related testimony

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Claim Term		Plaintiff's Proposed Construction and Evidence	Defendants' Proposed Construction and Evidence
			<ul style="list-style-type: none"> Defendants' <i>inter partes</i> review petitions and any supporting information, as well as any response by Nanoco and associated supporting information Any intrinsic or extrinsic evidence relied upon by Plaintiff in this case <p>Defendants' inclusion of materials referenced in this disclosure is not an admission that any of these materials constitute extrinsic evidence as opposed to intrinsic evidence. Defendants reserve all rights to submit any of these materials or similar materials as intrinsic or extrinsic evidence if the applicable standard provides for categorization as one or the other.</p>
2.	<p>"molecular cluster compound"</p> <p>'423 patent (all claims)</p> <p>'365 patent (all claims)</p>	<p>Proposed Construction:</p> <p>This claim term should be construed to mean "clusters of 3 or more metal or non-metal atoms and their associated ligands² of sufficiently well-defined chemical structure such that all molecules of the cluster compound possess the same relative molecular mass."</p> <p>Intrinsic Evidence:</p> <p>'423 patent at Col. 5, ll. 3-9; col. 7, ll. 48-60; col. 11, ll. 46-Figs. 2-5.</p>	<p>Proposed Construction:</p> <p>Indefinite.</p> <p>To the extent the term is not indefinite, it means "clusters of 3 or more metal atoms and their associated ligands of sufficiently well-defined chemical structure such that all molecules of the cluster compound possess the same relative molecular mass, where ligand means an atom or group bound to a central atom of a complex"</p> <p>Intrinsic Evidence:</p>

² Samsung's proposal for ligand is consistent with the general understanding in the art and not in dispute.

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	<p>'365 patent at col. 5, ll. 19-25; col. 11, l. 46 to col. 14, l. 49; Figs. 2-5.</p> <p>Extrinsic Evidence: Expert testimony of Dr. Brandi Cossairt.</p> <p>Hansgeorg Schnöckel, <i>Structures and Properties of Metalloid Al and Ga Clusters Open Our Eyes to the Diversity and Complexity of Fundamental Chemical and Physical Processes during Formation and Dissolution of Metals</i>, 110 Chem. Rev. 4125 (2010) (NANOCO_00058845-8883)</p>	<p><i>Specification:</i></p> <ul style="list-style-type: none"> • '828 patent at claims including, e.g., 1, 2, 3, 4, 11, 14 • '828 patent at figs. 3 and 4A-4E • '828 patent at Cover, Abstract, 1:1-14, 1:54-67, 3:19-57, 4:9-16, 4:31-37, 4:40-5:24, 5:52-6:15, 6:38-57, 7:17-28, 7:38-43, 9:60-10:39, 10:48-11:5, 11:25-13:10, 17:21-22:49 • '423 patent at claims including, e.g., 1, 2, 4, 6, 15, 16, 25 • '423 patent at figs. 2-14 • '423 patent at Cover, Abstract, 1:23-29, 4:19-46, 4:57-5:54, 6:27-42, 7:33-45, 10:36-49, 10:59-11:8, 11:32-12:38, 13:49-14:37, 14:57-15:26, Examples 1-9 • '365 patent at claims including, e.g., 1-5, 17-20 • '365 patent at figs. 2-14 • '365 patent at Cover, Abstract, 1:7-17, 1:33-39, 4:33-61, 5:5-6:3, 6:44-63, 7:48-59, 10:48-61, 11:4-21, 11:45-12:50, 13:59-14:49, 15:1-31, Examples 1-9 <p><i>Prosecution History:</i></p> <ul style="list-style-type: none"> • Prosecution History of U.S. Patent No. 7,588,828, Office Action Summary re Non-Final Rejection, at 2-3 (July 1, 2008); <i>id.</i>,

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		<p>Response to Office Action, at 2-3 (Sept. 29, 2008)</p> <ul style="list-style-type: none"> • Prosecution History of U.S. Patent No. 7,803,423, Notice of Allowability, at 4-5 (May 20, 2010) • Prosecution History of U.S. Patent No. 8,524,365, Office Action Summary re Non-Final Rejection, at 6-7, 15 (Mar. 28, 2012); <i>id.</i>, Response to Office Action Mailed March 28, 2012, at 4, 8 (Sept. 28, 2012) <p><i>Other:</i></p> <ul style="list-style-type: none"> • Scott L. Cumberland et al., <i>Inorganic Clusters as Single-Source Precursors for Preparation of CdSe, ZnSe, and CdSe/ZnS Nanomaterials</i>, 14 CHEM. MATERIALS 1576, 1578-79 (2002) • Prosecution History for U.S. Patent No. 8,062,703, Specification, at 9 (Aug. 11, 2010) • Prosecution History for European Patent No. 1,743,054, EPO Communication, at 2 (Feb. 3, 2015); <i>id.</i>, Ltr. to EPO re Response to Summons re Oral Proceedings, at 2 (May 11, 2015) • Prosecution History for European Patent No. 2,377,973, Description & Claims, at 9, 45 (July 13, 2011); <i>id.</i>, EPO Communication, at 1-2 (Mar. 31, 2015); <i>id.</i>, Ltr. to EPO re Mar. 31, 2015 EPO Correspondence, at 2 (Oct. 8, 2015); <i>id.</i>, EPO Communication, at 2 (Apr. 10, 2017); <i>id.</i>, Ltr. to EPO re Loss of Rights,

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		<p>at 1 (Nov. 22, 2017); <i>id.</i>, Text Intended for Grant, at 9 (Apr. 10, 2017)</p> <p>Extrinsic Evidence:</p> <ul style="list-style-type: none"> • '557 patent at claims including, e.g., 1, 2, 4, 6, 7, 15 • '557 patent at Cover, Abstract, 1:1-10, 1:28-34, 3:24-43, 3:54-63, 6:26-55, 7:19-26, 7:34-8:13, 8:56-60, 9:6-35, 9:58-10:5, 12:17-24, 14:58-15:18, 19:23-30, 23:54-67, 26:26-27:30, 27:55-28:15, 29:41-30:10 • Prosecution History of U.S. Patent No. 7,867,557, Office Action Summary re Non-Final Rejection, at 12-18 (Oct. 19, 2009); <i>id.</i>, Amendment and Response, at 13-14 (Feb. 17, 2010) • Prosecution History for International Application No. PCT/GB2006/003028, International Preliminary Report on Patentability (Feb. 12, 2008); <i>id.</i>, Written Opinion of the International Searching Authority, at 2 (Feb. 12, 2008) • Prosecution History for G.B. Patent No. 2,472,541, Combined Search and Examination Report, at 2 (Dec. 3, 2010); <i>id.</i>, Amended Claims, at 42 (Jan. 13, 2011). • D. Michael P. Mingos, <i>Gold Cluster Compounds</i>, 17 GOLD BULL. 5, 5 (1984)

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		<ul style="list-style-type: none"> • F. A. Cotton, <i>Transition-Metal Compounds Containing Clusters of Metal Atoms</i>, 20 Q. REV. CHEM. SOC'Y 389, 389 (1966) • Bert D. Chandler & John D. Gilbertson, <i>PAMAM Dendrimer Templated Nanoparticle Catalysts</i>, in <i>NANOPARTICLES AND CATALYSIS</i> 129, 130 n.1 (Didier Astruc ed., 2008) • MCGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS, at 1202, 1363 (6th ed. 2003) • OXFORD DICTIONARY OF CHEMISTRY, at 135 (4th ed. 2000) • CASSELL DICTIONARY OF CHEMISTRY, at 46 (1st ed. 1998) • LEXICO, https://www.lexico.com/en/definition/cluster • HAWLEY'S CONDENSED CHEMICAL DICTIONARY, at 698 (12th ed. 1993) • MERRIAM-WEBSTER DICTIONARY, https://www.merriam-webster.com/dictionary/ligand • <i>Compendium of Chemical Terminology</i>, IUPAC (2d ed.), https://doi.org/10.1351/goldbook.L03518 • <i>Cluster Chemistry</i>, WIKIPEDIA, http://en.wikipedia.org/wiki/cluster_chemistry, as of May 7, 2015 • MN Sokolov et al., <i>COMPREHENSIVE INORGANIC CHEMISTRY II</i>, Elsevier (2013) at § 2.11 (<i>Clusters and Cluster Assemblies</i>), 271

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		<ul style="list-style-type: none"> • Organometallic Chemistry of d Block Metals (Part 2), Section 6.5 (<i>available at</i> https://tinyurl.com/y7emyase) • U.S. Patent App. Pub. No. 2002/0016306, at ¶[0011] • Foreign Reference WO 2009/040553, at 6 (Apr. 26, 2011) • Pl.'s Proposed Constructions of Proposed Claim Terms, at 2 (Dec. 11, 2020) • Pl.'s Proposed Draft Joint Claim Construction and Prehearing Statement Appendix A, at 1-2 (Jan. 4, 2021) • Declaration of Dr. Brian Korgel, including incorporation by reference of all supporting information cited therein, and any related testimony • Defendants' <i>inter partes</i> review petitions and any supporting information, as well as any response by Nanoco and associated supporting information • Any intrinsic or extrinsic evidence relied upon by Plaintiff in this case <p>Defendants' inclusion of materials referenced in this disclosure is not an admission that any of these materials constitute extrinsic evidence as opposed to intrinsic evidence. Defendants reserve all rights to submit any of these materials or similar materials as intrinsic or extrinsic evidence if the applicable standard provides for categorization as one or the other.</p>

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3.	<p>“wherein said[/the] conversion is[/being] effected in the presence of a[/the] molecular cluster compound”</p> <p>'423 patent (all claims) '828 patent (claim 14) '365 patent (claims 17-23) '557 patent (all claims)</p>	<p>Proposed Construction:</p> <p>No construction is needed. This claim term should receive its plain and ordinary meaning.</p> <p>Intrinsic Evidence:</p> <p>'828 patent at col. 3, l. 19 to col. 5, l. 4; col. 6, ll. 38-57; col. 11: l. 25 to col. 13, l. 10.</p> <p>'423 patent at col. 4, l. 57 to col. 5, l. 34; col. 11, l. 33 to col. 14, l. 38.</p> <p>'365 patent at col. 5, ll. 5-50.</p> <p>Extrinsic Evidence: Expert testimony of Dr. Brandi Cossairt.</p>	<p>Proposed Construction:</p> <p>“a molecular cluster compound acts as a seed or template to grow the nanoparticle core”</p> <p>Intrinsic Evidence:</p> <ul style="list-style-type: none"> the intrinsic evidence cited above with respect to “molecular cluster compound” (both #1 and #2) is incorporated by reference here <p><i>Specification:</i></p> <ul style="list-style-type: none"> '423 patent at claims including, e.g., 1, 4, 6-8, 12, 14-16, 18-22, 24, 25 '423 patent at 1:23-29, 2:57-3:18, 3:30-39, 4:19-46, 4:57-5:3, 5:14-18, 7:39-42, 10:36-39, 10:61-63, 11:32, 11:36-40, 11:52-55, 13:49 '423 patent at figs. 2-6 '828 patent at claims including, e.g., 14 '828 patent at 1:54-61, 3:16-28, 4:41-47, 6:42-57, 10:6-11, 11:26-28, 20:26-21:7 '828 patent at figs. 3-4E '365 patent at claims including, e.g., 17-23 '365 patent at 1:33-39, 3:1-30, 3:44-53, 4:33-50, 4:51-61, 5:5-17, 5:18-19, 5:30-34, 7:54-57, 10:48-51, 11:6-8, 11:45, 11:49-53, 11:64-67, 13:59-61 '365 patent at figs. 2-6B

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		<ul style="list-style-type: none"> '557 patent at 1:28-35, 3:24-43, 3:54-63, 9:58-10:5, 13:40-67, 14:23-35, 14:58-63, 15:1-8 '557 patent at claims <p><i>Prosecution History:</i></p> <ul style="list-style-type: none"> '365 Patent Prosecution History, Office Action Summary re Non-Final Rejection, at 6, 9, 15 (Mar. 28, 2012); <i>id.</i>, Response to Office Action Mailed March 28, 2012, at 8, 9 (Sept. 28, 2012). '557 Patent Prosecution History, Office Action Summary re Non-Final Rejection, at 13 (Oct. 19, 2009) '828 Patent Prosecution History, Office Action Summary re Non-Final Rejection, at 2 (July 1, 2008) '423 Patent Prosecution History, Notice of Allowability, at 5 (May 20, 2010) <p><i>Other:</i></p> <ul style="list-style-type: none"> Prosecution History for European Patent Pub. No. 1,913,182, Ltr. to EPO re July 22, 2011 EPO Communication, at 1 (Nov. 17, 2011); <i>id.</i>, Ltr. to EPO re Feb. 28, 2014 EPO Communication (Apr. 30, 2014) Prosecution History for European Patent No. 1,743,054, Written Opinion of the International Searching Authority, at 1-3 (Nov. 1, 2006); <i>id.</i>, EPO Communication, at

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		<p>1-2 (July 9, 2009); <i>id.</i>, Ltr. to EPO re July 9, 2009 EPO Communication, at 2-5 (Dec. 4, 2009)</p> <ul style="list-style-type: none"> • Prosecution History for European Patent No. 2,377,973, Ltr. to EPO re European Search Report and Loss of Rights, at 2-4 (Aug. 3, 2012); <i>id.</i>, Ltr. to EPO re March 31, 2015 EPO Communication, at 1 (Oct. 8, 2015) • Prosecution History for U.S. Patent No. 9,234,130, Applicant Amendment and Response to Office Action, at 8-9 (Jan. 15, 2015) • Prosecution History for U.S. Patent App. No. 16/211,942, Office Action re Non-Final Rejection, at 4 (Aug. 7, 2020) • Prosecution History for Israeli Patent App. No. 178,874, Memorandum in Response to October 13, 2010 Office Action, at 1-3 • Prosecution History for U.S. Patent App. No. 12/959,749, Response to Final Office Action Mailed Apr. 26, 2012, at 7 (July 26, 2012); <i>id.</i>, Response to Office Action Mailed Nov. 2, 2011, at 9-11 (Apr. 2, 2012) • Prosecution History for G.B. Patent No. 2,472,541, Combined Search and Examination Report, at 2 (Dec. 3, 2010); <i>id.</i>, Amended Claims, at 42 (Jan. 13, 2011). <p>Extrinsic Evidence:</p>

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		<ul style="list-style-type: none"> • the extrinsic evidence cited above with respect to “molecular cluster compound” (both #1 and #2) is incorporated by reference here • HAWLEY’S CONDENSED CHEMICAL DICTIONARY, at 841, 1027 (12th ed. 1993) • MCGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS, at 1450, 1886 (6th ed. 2003) • Nigel L. Pickett et al., <i>Commercial Volumes of Quantum Dots: Controlled Nanoscale Synthesis and Micron-Scale Applications</i>, 3 MATERIAL MATTERS 1, 24-25 (2011) (“Pickett”) • <i>Nanoco Impact Case Study</i>, Research Excellence Framework, 1 (2014) • <i>The Economic Benefits of Chemistry Research to the UK</i>, Oxford Economics, 71 (2010) • A. Amulya et al., <i>Current Trends On Role Of Nano Particles On Pulmonary Diseases</i>, International Journal of Research in Pharmacy and Chemistry, at 688 (2012) • Pl.’s Proposed Constructions of Proposed Claim Terms, at 3 (Dec. 11, 2020) • Pl.’s Proposed Draft Joint Claim Construction and Prehearing Statement Appendix A, at 2 (Jan. 4, 2021) • Declaration of Dr. Brian Korgel, including incorporation by reference of all supporting information cited therein, and any related testimony

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			<ul style="list-style-type: none"> Defendants' <i>inter partes</i> review petitions and any supporting information, as well as any response by Nanoco and associated supporting information Any intrinsic or extrinsic evidence relied upon by Plaintiff in this case <p>Defendants' inclusion of materials referenced in this disclosure is not an admission that any of these materials constitute extrinsic evidence as opposed to intrinsic evidence. Defendants reserve all rights to submit any of these materials or similar materials as intrinsic or extrinsic evidence if the applicable standard provides for categorization as one or the other.</p>
4.	<p>"first semiconductor material"</p> <p>'557 patent (all claims)</p>	<p>Proposed Construction:</p> <p>No construction is needed. This claim term should receive its plain and ordinary meaning.</p> <p>Intrinsic Evidence:</p> <p>'557 patent at col. 3:24-43; col. 5, l. 4 to col. 6, l. 25; col. 10, l. 6 to col. 12, l. 48; col. 21, l. 26 – col. 23, l. 40.</p> <p>Extrinsic Evidence:</p> <p>Expert testimony of Dr. Brandi Cossairt.</p>	<p>Proposed Construction:</p> <p>"a material having a narrower band gap than the core and second semiconductor material"</p> <p>Intrinsic Evidence:</p> <p><i>Specification:</i></p> <ul style="list-style-type: none"> '557 patent at Abstract, 1:1-10, 1:51-2:14, 2:25-3:53, 3:64-4:14, :15-5:31, 5:39-45, 6:8-25, 10:28-39, 10:55-11:15, 11:23-30, 11:61-12:3, 12:32-48, 13:26-39, 15:39-17:57, 19:31-20:17, 21:26-30, 23:41-25:21, 25:25-48, 26:4-5, 27:40-29:35

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		<ul style="list-style-type: none"> • '557 patent at figs. 1-3, 11A, 11B • '557 patent at claims including, e.g., claims 1, 17 <p>Extrinsic Evidence:</p> <ul style="list-style-type: none"> • Detlef Schooss et al., <i>Quantum-Dot Quantum Well CdS/HgS/CdS: Theory and Experiment</i>, 49 PHYS. REV. B 17072, 17074 (1994) • '423 patent at 1:63-2:15 • '828 patent at 2:1-24 • '365 patent at 2:6-26 • Nigel L. Pickett et al., <i>Commercial Volumes of Quantum Dots: Controlled Nanoscale Synthesis and Micron-Scale Applications</i>, 3 MATERIAL MATTERS 1, 24 (2011) • M.J. Anc et al., <i>Progress in Non-Cd Quantum Dot Development for Lighting Applications</i>, 2 ECS J. SOLID STATE SCI. TECH. R3071, R3076, R3077 (2013) • Jia-Ming Liu, <i>Photonic Devices</i>, SEMICONDUCTOR OPTOELECTRONICS, at 759, 779, 780 (2005) • CRC Handbook of Chemistry and Physics, 91st ed. at 12-85–12-86 (2010) • Declaration of Dr. Brian Korgel, including incorporation by reference of all supporting information cited therein, and any related testimony • Defendants' <i>inter partes</i> review petitions and any supporting information, as well as any

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Claim Term		Plaintiff's Proposed Construction and Evidence	Defendants' Proposed Construction and Evidence
			<p>response by Nanoco and associated supporting information</p> <ul style="list-style-type: none"> Any intrinsic or extrinsic evidence relied upon by Plaintiff in this case <p>Defendants' inclusion of materials referenced in this disclosure is not an admission that any of these materials constitute extrinsic evidence as opposed to intrinsic evidence. Defendants reserve all rights to submit any of these materials or similar materials as intrinsic or extrinsic evidence if the applicable standard provides for categorization as one or the other.</p>
5.	<p>"emulsion"</p> <p>'068 patent (claim 1)</p>	<p>Proposed Construction:</p> <p>No construction is needed. This claim term should receive its plain and ordinary meaning.</p> <p>If the Court determines to construe this term, or if an exemplary definition is needed, the plain and ordinary meaning, to a person of ordinary skill in the art after reviewing the patent's intrinsic evidence, is "a mixture of two or more immiscible liquids, in which one liquid is dispersed in another liquid."</p> <p>Intrinsic Evidence:</p> <p>'068 patent at col. 2, ll. 17 -24; col. 5, ll. 12-60; col. 8, ll. 54-60; Figs 3-4.</p>	<p>Proposed Construction:</p> <p>"a suspension of two or more immiscible liquid phases, in which one liquid phase is dispersed in another liquid phase"</p> <p>Intrinsic Evidence:</p> <p><i>Specification:</i></p> <ul style="list-style-type: none"> '068 patent at claim 1 '068 patent at Title, Abstract, 1:6-8, 2:3-24, 4:11-5:50, 5:56-59, 6:17-21 '068 patent at fig. 3 <p><i>Prosecution History:</i></p>

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Claim Term	Plaintiff's Proposed Construction and Evidence	Defendants' Proposed Construction and Evidence
	<p>Extrinsic Evidence: Expert testimony of Dr. Stephen Weber.</p> <ul style="list-style-type: none"> • NANOCO_00058204: McGraw-Hill Dictionary of Scientific and Technical Terms (6th ed. 2003) • NANOCO_00058207: Hawley's Condensed Chemical Dictionary (15th ed. 2007) • NANOCO_00058213: Dictionary of Science and Technology (2d ed. 2007) • NANOCO_00058216: A Dictionary of Chemistry (5th ed. 2004) • NANOCO_00058219: McGraw-Hill Dictionary of Chemistry (1984) • NANOCO_00058226: The Penguin Dictionary of Chemistry (2d ed. 1990) • NANOCO_00058243: Addison-Wesley Chemistry (1993) • NANOCO_00058247: Chemistry: Visualizing Matter (1998) • NANOCO_00058255: General Chemistry, (Dover ed. 1988) 	<ul style="list-style-type: none"> • Prosecution History for U.S. Patent No. 9,680,068, Response to Office Action, Amendment (Nov. 23, 2016); <i>id.</i>, Response to Office Action, Remarks at 5-8 (Nov. 23, 2016); <i>id.</i>, Specification (Aug. 14, 2014); <i>id.</i>, Claims (Aug. 14, 2014); <i>id.</i>, Non-Final Rejection (Aug. 24, 2016); <i>id.</i>, Final Rejection (Dec. 30, 2016); <i>id.</i> Amendment Under Rule 116. <p>Extrinsic Evidence:</p> <ul style="list-style-type: none"> • HAWLEY'S CONDENSED CHEMICAL DICTIONARY, at 669, 852, 966, 1197 (15th ed. 2007) • THE AMERICAN HERITAGE SCIENCE DICTIONARY, at 206 (1st ed. 2011) • THE AMERICAN HERITAGE SCIENCE DICTIONARY, at 451 (3d ed. 1993) • OXFORD DICTIONARY OF CHEMICAL ENGINEERING, at 125 (1st ed. 2014) • HERITAGE DICTIONARY: SECOND COLLEGE EDITION, at 450 (1985) • DICTIONARY.COM, https://www.dictionary.com/browse/emulsion • DICTIONARY OF SCIENCE AND TECHNOLOGY, at 215 (2d ed. 2007) • MCGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS, at 716, 1572 (6th ed. 2003)

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Claim Term		Plaintiff's Proposed Construction and Evidence	Defendants' Proposed Construction and Evidence
			<ul style="list-style-type: none"> • <i>Compendium of Chemical Terminology</i>, IUPAC, https://doi.org/10.1351/goldbook.M03949 • Declaration of Dr. Brian Korgel, including incorporation by reference of all supporting information cited therein, and any related testimony • Defendants' <i>inter partes</i> review petitions and any supporting information, as well as any response by Nanoco and associated supporting information • Any intrinsic or extrinsic evidence relied upon by Plaintiff in this case <p>Defendants' inclusion of materials referenced in this disclosure is not an admission that any of these materials constitute extrinsic evidence as opposed to intrinsic evidence. Defendants reserve all rights to submit any of these materials or similar materials as intrinsic or extrinsic evidence if the applicable standard provides for categorization as one or the other.</p>
6.	<p>"polymer"</p> <p>'068 patent (claim 1)</p>	<p>Proposed Construction:</p> <p>This claim term should be construed to mean "a polymerized or polymerizable substance."</p> <p>Intrinsic Evidence:</p> <p>'068 patent at col. 2, ll. 3-23; col. 4, l. 59 -col. 5, l. 41; and Examples 1-4.</p>	<p>Proposed Construction:</p> <p>Plain and ordinary meaning, i.e., "a molecule composed of repeating subunits"</p> <p>Intrinsic Evidence:</p> <p><i>Specification:</i></p>

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Claim Term	Plaintiff's Proposed Construction and Evidence	Defendants' Proposed Construction and Evidence
		<p data-bbox="604 305 1121 375">Extrinsic Evidence: Expert testimony of Dr. Stephen Weber.</p> <ul data-bbox="1245 305 1885 451" style="list-style-type: none"> • '068 patent at claim 1 • '068 patent at Abstract, 2:3-24, 2:37-40, 3:36-67, 4:11-50, 4:59-5:12, 5:26-30, 5:32-38, 6:1-24 <p data-bbox="1245 492 1514 524"><i>Prosecution History:</i></p> <ul data-bbox="1245 570 1864 784" style="list-style-type: none"> • Prosecution History for U.S. Patent No. 9,680,068, Application, at 17-18 (Aug. 14, 2014); <i>id.</i>, Office Action, at 2-10 (Aug. 24, 2016); <i>id.</i>, Response to Office Action, at 2-9 (Nov. 23, 2016); <i>id.</i>, Office Action, at 5-9 (Dec. 30, 2016); <i>id.</i>, Notice of Allowability. <p data-bbox="1245 824 1514 857">Extrinsic Evidence:</p> <ul data-bbox="1245 865 1896 1414" style="list-style-type: none"> • HAWLEY'S CONDENSED CHEMICAL DICTIONARY, at 861, 1013-14, 1083 (15th ed. 2007) • MCGRAW-HILL CONCISE ENCYCLOPEDIA OF SCIENCE & TECHNOLOGY, at 1744 (5th ed. 2004) • Kensuke Naka, <i>Monomers, Oligomers, Polymers, and Macromolecules (Overview)</i>, in ENCYCLOPEDIA OF POLYMERIC NANOMATERIALS (S. Kobayashi & K. Müllen eds., 2014) • <i>Compendium of Chemical Terminology</i>, IUPAC, https://doi.org/10.1351/goldbook.P04735; <i>id.</i>, https://doi.org/10.1351/goldbook.M03667

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Claim Term	Plaintiff's Proposed Construction and Evidence	Defendants' Proposed Construction and Evidence
		<ul style="list-style-type: none"> • NANOMATERIALS & POLYMER NANOCOMPOSITES, at 12-13 (N. Karak ed., 2019) • <i>Polymeric Solids</i>, https://saylordotorg.github.io/text_general-chemistry-principles-patterns-and-applications-v1.0/s16-08-polymeric-solids.html • P.K. Mallick, PROCESSING OF POLYMER MATRIX COMPOSITES, at 77 (2018) • Declaration of Dr. Brian Korgel, including incorporation by reference of all supporting information cited therein, and any related testimony • Defendants' <i>inter partes</i> review petitions and any supporting information, as well as any response by Nanoco and associated supporting information • Any intrinsic or extrinsic evidence relied upon by Plaintiff in this case <p>Defendants' inclusion of materials referenced in this disclosure is not an admission that any of these materials constitute extrinsic evidence as opposed to intrinsic evidence. Defendants reserve all rights to submit any of these materials or similar materials as intrinsic or extrinsic evidence if the applicable standard provides for categorization as one or the other.</p>